

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE  
(REV. 7-2005)

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

DREX-1002US

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

Not Yet Known

PRIORITY DATE CLAIMED

06/20/2003

INTERNATIONAL APPLICATION NO.  
PCT/US04/19590INTERNATIONAL FILING DATE  
06/18/2004

## TITLE OF INVENTION

VORTEX REACTOR AND METHOD OF USING IT

## APPLICANT(S) FOR DO/EO/US

Fridman, et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A copy of the International Search Report (PCT/ISA/210).

**Items 13 to 23 below concern document(s) or information included:**

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A power of attorney and/or change of address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
20. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
22. ☒ Express Mail Label No. **EL022594460US**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>11/560537</b> Not Yet Known	INTERNATIONAL APPLICATION NO. <b>PCT/US04/19590</b>	ATTORNEY'S DOCKET NUMBER <b>DREX-1002US</b>
23. Other items or information:		
The following fees have been submitted:		CALCULATIONS      PTO USE
24. <input checked="" type="checkbox"/> Basic national fee ..... \$300		\$ 300.00
25. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article \$0 All other situations: ..... \$200		\$ 200.00
26. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority. .... \$100 International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB. .... \$400 All other situations: ..... \$500		\$ 100.00
<b>TOTAL OF 24, 25 and 26 =</b>		\$ 600.00
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.		
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)
22 - 100 =	0 /50 =	0
		x \$250.00
		\$ 0.00
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		\$
CLAIMS	NUMBER FILED	NUMBER EXTRA
Total claims	32 - 20 =	12
Independent claims	3 - 3 =	0
		x \$200.00
		\$ 0.00
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/> + \$360.00		\$ 0.00
<b>TOTAL OF ABOVE CALCULATIONS =</b>		\$ 1,200.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.		\$ 600.00
<b>SUBTOTAL =</b>		\$ 600.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).		\$ 0.00
<b>TOTAL NATIONAL FEE =</b>		\$ 600.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +		\$ 0.00
<b>TOTAL FEES ENCLOSED =</b>		\$ 600.00
		Amount to be \$
		Amount to be \$

10/560537  
IAP6 Rec'd PCT/PTO 13 DEC 2005

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☒ A check in the amount of \$ \$600.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0462. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

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SIGNATURE

Kevin J. Dunleavy

NAME

32,024

REGISTRATION NUMBER

12/13/2005

DATE

10/560537

1AP6 Rec'd PCT/PTO 13 DEC 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Certificate of Mailing by First Class Mail (37 CFR 1.8)

Applicant: Fridman et al.

Application No.: Unknown

Examiner: Unknown

Group Art Unit: Unknown

Invention: Vortex Reactor and Method of Using It

Docket No.: DREX-1002US

Filing Date: Herewith

Customer No. 21302

TO THE COMMISSIONER FOR PATENTS:

I hereby certify that this Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Submission Under 35 U.S.C. §371 (3 pgs.); a check in the amount of \$600.00 for filing fees and a return-receipt postcard are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to "Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Signature

Dated: 12/12/05

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